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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,635

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Omer Einav

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03/19/2012

MARTIN D. MOYNIHAN d/b/a PRTSI, INC.

P.O. BOX 16446

ARLINGTON, VA 22215

EXAMINER

THANH, QUANG D

ART UNIT

PAPER NUMBER

3771

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/597,635	Applicant(s) EINAV, OMER	
	Examiner Quang D. Thanh	Art Unit 3771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-9, 11-68 is/are pending in the application.
- 5a) Of the above claim(s) 18-55 is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-9, 11-17 and 56-68 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-8, in the reply filed on 02/13/2012 is acknowledged.

This office action is responsive to the amendment filed on 02/13/2012. As directed by the amendment: claims 1, 9, 16 and 46 have been amended, claim 10 has been canceled and new claims 56-68 have been added. Accordingly, claims 18-45 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. It is also noted that claims 46-55 of group VII, drawn to a method for gait rehabilitation by attaching a multiple axis rotatable pedal to a patient's foot and automatically controlling the rotating of the pedal, appear to lack of unity of invention. Lack of unity of invention may be directly evident "a priori," that is, before considering the claims in relation to any prior art, or may only become apparent "a posteriori," that is, after taking the prior art into consideration. For example, independent claims to A + X, A + Y, X + Y can be said to lack unity a priori as there is no subject matter common to all claims. In the case of independent claims to A + X and A + Y, unity of invention is present a priori as A is common to both claims. However, if it can be established that A is known, there is lack of unity a posteriori, since A (be it a single feature or a group of features) is not a technical feature that defines a contribution over the prior art. Accordingly, claims 46-55 are also withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being

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drawn to a nonelected invention, there being no allowable generic or linking claim.

Thus, claims 1-9, 11-17 and 56-68 are presently under consideration in this application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 7, 9, 11-17, 56-57, 59-68 are rejected under 35 U.S.C. 102(e) as being anticipated by Horst (US 6,966,882).

4. Re claims 1-5, 7 and 9, Horst discloses a method for gait rehabilitation (see abstract), comprising: identifying at least one deficient gait element; exercising said deficient gait element individually using a rehabilitation apparatus 10 (fig. 1); and exercising said deficient gait element in concert with at least one other gait element in more than one plane on the same side of the body (col. 7, lines 18-26), using said rehabilitation apparatus; wherein gait elements are chosen from a group consisting of feet, legs, hips, torso, shoulders, head, hands and arms (col. 7, lines 18-26); exercising a complex gait; wherein a complex gait is chosen from the group consisting of balance, overcoming obstacles, moving backwards, movement on steps, turning, movement on slopes and varying speed (col. 4, lines 41-44); wherein said gait rehabilitation is performed sitting down (col. 4, line 4); wherein said gait rehabilitation is performed

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utilizing an object (col. 7, line 67 and col. 8, line 1-2) designed to assist with movement;, wherein the identifying at least one deficient gait element comprises: detecting the positions of at least one gait element during movement (by means of joint angle sensor 414, col. 8, lines 54-62); recording the detected positions of the at least one gait element, wherein position recordings are made (memory 420 in fig. 4, col. 11, lines 5-11); and, displaying (col. 8, lines 21-23) said position recordings of the at least one gait element.

5. Re claims 11-17, Horst discloses wherein at least one position sensor 414 (col. 8, lines 58-60) is used for said detecting; wherein at least one optical sensing device (col. 8, lines 58-62) is used for said detecting; wherein at least one position sensor and at least one optical sensing device is used for said detecting (col. 8, lines 58-62); wherein said position recordings are of movements performed by a person undergoing rehabilitation (rehabilitation mode 512, col. 10, lines 27-44); wherein said position recordings are of movements performed by a person not undergoing rehabilitation (monitor mode 510, col. 9, lines 57-63); wherein said exercising is analyzed in comparison to said position recordings and wherein additional exercise is performed based on said analysis (col. 10, lines 45-67).

6. Re claims 56-57, 59-68, Horst discloses wherein exercising the at least one deficient gait element is based on said display of said recording (col. 8, lines 17-25); further comprising measuring rehabilitation progress (data acquisition module, col. 11, lines 38-43); wherein measuring uses at least one optical sensing device (col. 8, lines 60-62); further comprising providing feedback (fig. 4, col. 9, lines 25-30) during the

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exercising for enhancing gait rehabilitation performance; Horst teaches that rehabilitation is performed in helping someone with muscle weakness in the everyday tasks of standing, sitting and walking thus inherently teaches that the rehabilitation is adapted for either a child or an adult; further comprising transmitting exercise data to a remote location over a communications network (col. 8, lines 26-30); wherein exercising is performed with the apparatus set in at least one of a plurality operational modes (fig. 5, col. 9, lines 41-47); wherein the at least one set mode is motive (assist 508); wherein the at least one set mode is passive (monitor 510). wherein the at least one set mode is a combination of motive and passive (rehabilitate 512); wherein the at least one deficient gait element is a complex gait element chosen from the group consisting of balance, overcoming obstacles, climbing steps, movement on slopes and varying speed (col. 4, lines 41-43); further comprising entertaining during exercising by incorporating displaying exercise related data (col. 8, lines 21-23).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horst.

9. Re claim 6, Horst teaches that rehabilitation is performed in helping someone with muscle weakness in the everyday tasks of standing, sitting and walking but does

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not disclose that the rehabilitation is performed in a wheelchair. However, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Horst's reference, so that the rehabilitation of the task of sitting can be performed in a wheelchair, for the purpose of providing suitable rehabilitation for preventing injury and building muscle strength (see abstract).

10. Re claim 8, Horst teaches that passive assistance devices such as canes, walkers, crutches provide assistance with mobility (col. 1, lines 24-26), therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Horst's reference, to include additional passive assistance devices such as canes, walkers, crutches during the rehabilitation, for the purpose of providing assistance with mobility (col. 1, lines 24-26).

11. Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horst in view of McBean et al. (US 2004/0106881). Horst does not disclose wherein measuring uses at least one EMG sensor. However, McBean teaches a powered orthotic device that can be controlled by a patient having spinal cord or other nerve damage by way of the EMG signal measured by EMG sensor generated by the patient to move a joint which the patient is otherwise unable to effectively move ([0012]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Horst's reference, to include EMG sensors, for the purpose of allowing the patient to be quickly rehabilitated to use their limb or body part or can use the powered orthotic device for daily activities where rehabilitation is not fully possible ([0012]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang D. Thanh whose telephone number is (571)272-4982. The examiner can normally be reached on Monday-Friday 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Quang D. Thanh/
Primary Examiner, Art Unit 3771

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